

November 27, 2017

**VIA ELECTRONIC FILING**

The Honorable Jocelyn G. Boyd  
Chief Clerk/Administrator  
Public Service Commission of South Carolina  
101 Executive Center Drive, Suite 100  
Columbia, South Carolina 29210

**Re: Amended Project Development Application of Duke Energy Carolinas,  
LLC for Approval of Decision to Incur Nuclear Generation Pre-  
Construction Costs  
Docket No. 2011-20-E**

Dear Ms. Boyd:

Attached is the report of activities and expenditures for Lee Nuclear Station for the period ending September 30, 2017. This report presents the cost information in a somewhat more detailed format than in previous reports but there is no substantive change in the information being provided.

Please contact me if you have any questions about this filing.

Yours truly,



Frank R. Ellerbe, III

cc: C. Dukes Scott, Office of Regulatory Staff (via email)  
Nanette Edwards, Office of Regulatory Staff (via email)  
Dawn Hipp, Office of Regulatory Staff (via email)  
Shannon Bowyer Hudson, Office of Regulatory Staff (via email)  
Michael Seaman-Huynh, Office of Regulatory Staff (via email)  
Heather Shirley Smith, Deputy General Counsel (via email)  
Rebecca J. Dulin, Senior Counsel (via email)  
Parties of Record (via email)

BEFORE  
THE PUBLIC SERVICE COMMISSION  
OF SOUTH CAROLINA  
DOCKET NO. 2011-20-E

In Re: )  
 )  
Amended Project Development )  
Application of Duke Energy Carolinas )  
LLC for Approval of Decision to )  
Incur Nuclear Generation Pre- )  
Construction Costs )

**REPORT OF PRECONSTRUCTION COSTS  
FOR LEE NUCLEAR STATION PROJECT DEVELOPMENT ACTIVITIES  
JANUARY 1, 2011 – SEPTEMBER 20, 2017**

Task Description	01/01/2011-12/31/2016	01/01/2017-6/30/2017	06/30/17-09/30/17	Project Totals to Date
<b>COLA Preparation</b>	\$ (254,088)	\$ -	\$ -	\$ 25,067,000
<b>NRC Review &amp; Hearing Fees</b>	\$ 61,668,621	\$ 459,312	\$ -	\$ 110,488,035
<b>Land and Right-of-way Purchases</b>	\$ 1,601,087	\$ -	\$ -	\$ 44,341,359
<b>Pre-construction and Site Preparation</b>	\$ 1,673,893	\$ 14,115	\$ -	\$ 21,687,392
<b>Supply Chain, Construction Planning, and Detailed Engineering</b>	\$ 57,675,449	\$ 60,476	\$ -	\$ 79,943,701
<b>Operational Planning</b>	\$ 3,658,280	\$ 16,793	\$ -	\$ 4,794,175
<b>Post COL</b>	\$ -	\$ 1,069,241	\$ 472,043	\$ 1,541,284
<b>Allocate</b>	\$ 12,983,184	\$ 144,254		\$ 22,237,518
<b>AFUDC</b>	\$ 172,449,346	\$ 19,893,701	\$ 6,470,882	\$ 238,397,384
<b>TOTAL</b>	\$ 311,455,772	\$ 21,657,892	\$ 6,942,925	\$ 548,497,848

The activities included in each category are as follows:

**COLA Preparation** – includes Duke labor, expenses and contract support for preparation of the Combined Construction and Operating License (COL) Application tendered to the Nuclear Regulatory Commission (NRC) on December 13, 2007. The NRC determined the application was suitable for review and docketed the application on February 25, 2008.

**NRC Review and Hearing Fees** – includes the cost of the NRC review fees, Duke labor and expenses, contract labor and legal support required to support the NRC review of the Lee Nuclear Station COL application, and preparation for the Advisory Committee on Reactor Safeguards Subcommittee Hearing. Category also includes interactions with South Carolina Department of Health and Environmental Control (SCDHEC) and the US Army Corps of Engineers (USACE), as required to move the environmental permit applications forward. The Lee project received the National Pollutant Discharge Elimination System (NPDES) Operations permit on July 17, 2013. The Final Environmental Impact Statement was issued by the NRC on December 23, 2013, and the 401 Water Quality Certification was issued on January 2, 2014. The Final Environmental Impact Statement prepared by the U.S. Forest Service to support mitigation activities in Sumter National Forest was issued on December 5, 2014. Lee Nuclear Station received its USACE 404 Permit on September 29, 2015.

**Land and Right-of-Way Purchases** – includes the purchase of land required for the Lee site and rail right-of-ways. Category also includes cost of purchasing additional land for a supplemental cooling pond in event of severe drought, as well as costs for surveying the selected transmission right-of-way.

**Pre-construction and Site Preparation** – includes site activities to both maintain the site and prepare the site for construction. Site preparation activities included: dewatering and cleanup of the excavated area, site remediation activities required to identify and properly dispose of hazardous wastes, and costs associated with the demolition and removal of unusable structures. Necessary maintenance of existing rail bed and required Make-up Pond B spillway repair were completed. Engineering of offsite infrastructure for potable water, sewer, and rail spur; and, geotechnical evaluations (needed for engineering) have been completed. Engineering for bringing communications to the site is also included in this category. Engineering of necessary traffic improvements was brought to 85% completion by December 2013. Ongoing and continuing activities include: site security, utilities and miscellaneous site maintenance.

**Supply Chain, Construction Planning and Engineering** – includes activities associated with working with the supplier to negotiate an Engineering, Procurement and Construction (EPC) agreement. Negotiations in 2008 did not result in an executed contract. Conceptual site specific engineering and construction planning activities necessary to develop a complete project definition are included in this category. Continuing construction planning activities serve to further develop construction plans and keep the construction plans in line with latest engineering. Detailed site specific engineering began in January 2011 and was brought to 70% completion in December 2013. Commercial building design activities started in June 2012. Design of the first six commercial buildings was completed in December 2013.

**Operational Planning** – includes activities associated with operator and plant staff training, including costs associated with the Knowledge and Abilities Catalog, required for operator license examinations for AP1000 plants, and the standardization of the nomenclature in the Westinghouse Master Equipment List (MEL). Continuing activities include: supporting operations program development, such as Quality Assurance (QA) Program, and the review of approximately 500 procedures. The training materials, operational programs, and operating

procedures are all being developed in concert with other AP1000 utilities within the APOG framework. The *Operational Planning* category also includes generation of administrative procedures that must be in place upon receipt of COL from NRC.

**Post COL** – A Combined Construction Permit and Operating License (COL) was received for the Lee AP1000 Project in December 2016. Design finalization and first-of-a-kind construction issues at the lead plants (Summer 2 and 3, Vogtle 3 and 4) have required Westinghouse to make numerous changes to the AP1000 design. Design changes continue to be issued as the lead plants advance towards completion. Submittal of an annual FSAR update and recurring regulatory reporting are required to maintain the COL.

**Allocate** – Labor burdens and allocated labor. This category had previously been manually spread to create the SCUC report. It has been determined that it is more accurate to show these charges in a separate bucket.

\*Charges for LCOLAEP (Engineering, Procurement and Construction Release to COL) are now being reported in Supply Chain, Construction Planning, and Detailed Engineering.